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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/195,728	11/18/1998	STEVEN M. DRUCKER	1026-006-112	4618

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EXAMINER

YANG, RYAN R

ART UNIT PAPER NUMBER

2672

DATE MAILED: 02/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

CB

Office Action Summary

Application No.

09/195,728

Applicant(s)

DRUCKER ET AL.

Examiner

Ryan R Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36, 38 and 39 is/are rejected.
- 7) ☒ Claim(s) 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 1/28/02.

This action is non-final.

2. Claims 1-39 are pending in this application. Claims 1,16,27 and 34 are independent claims. In the Amendment, filed on 1/28/02, claims 40-42 were cancelled.
3. The present title of the invention is "View Dependent Tiled Textures" as filed originally.

Specification

4. The disclosure is objected to because on page 17 of specification, line 2, the object plane 1114 has no correspondence in Figure 11.

Appropriate correction is required.

5. After further reviewing the claims, the Examiner determine the application is not allowable for patent for the following reasons:

6. Claims 24 and 37 are objected to because they are written in incomplete sentence.

Claim 24 recites "... an oblique parallel projection the predetermined tile structure." The Examiner suggest to change it to "... an oblique parallel projection of the predetermined tile structure."

Similar correction is suggested for claim 37.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-33 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites the limitation "image texture rendered simultaneously on a display screen immediately adjacent each other" in texture mapping. There is insufficient disclosure in the specification leading to the claimed limitation.

Claim 16 recites the limitation "rendering the texture map tiles simultaneously at the adjacent regions on the computer display screen" in applying a texture map. There is insufficient disclosure in the specification leading to the claimed limitation.

Claim 27 recites the limitation "selected viewing angles of plural adjacent tiles to be viewed simultaneously" in generating a tile data structure. There is insufficient disclosure in the specification leading to the claimed limitation.

The arguments filed on 5/29/01 on page 6 of amendment regarding claims 1, 16 and 27 are not persuasive.

9. Claims 2-15, 17-26 and 28-33 are similarly rejected since they are dependent on the rejected independent claims.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 34-36 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaibara et al. (5,786,822).

As per claim 34, Sakaibara et al., hereinafter Sakaibara, discloses in a computer readable medium, computer software instructions for applying a texture map to an image surface in a graphics image rendered on a computer display screen, comprising:

software instructions for identifying plural adjacent regions of the image surface to which regions the texture map is to be applied (Figure 2A-2D);

software instructions for determining a viewing angle for each of the plural regions ("A plurality of directions to view the surface of the real object or the surface generated by the computer graphics corresponding to the texture data, are assumed, and different texture data is provided for each of the different directions and when the object is displayed, the texture data corresponding to the direction of viewing the surface of the object is selected for mapping", column 3, line 57-63, and in Figure 13 each of the positions 20 is a selected viewpoint for each region 30 for a plurality of regions, Figure 2A-2D);

Software instructions for correlating each viewing angle with a texture map tile corresponding to the viewing angle ("different texture data is provided for each of the different directions and when the object is displayed, the texture data corresponding to

the direction of viewing the surface of the object is selected for mapping", column 3, line 60-63); and

software instructions for rendering the texture map tiles at the adjacent regions on the computer display screen to form the texture map on the image surface (Figure 1 monitor 8).

As for the software instruction, since the Sakaibara teaching is about computer graphics and it also discloses a CPU and memory (Figure 1 1 and 2), it is obvious that his method is performed in the form of computer software.

12. As per claim 35, Sakaibara demonstrated all the elements as applied in the rejections of independent claim 34, supra, and further discloses the texture tile map tile corresponding to the viewing angle for each region is one of plural predetermined texture map tiles stored in a computer memory ("the texture data through the direction viewing the triangle under construction (the viewing direction) is selected from the texture memory 7 (step 203)", column 6, line 65-67).

13. As per claim 36, Sakaibara demonstrated all the elements as applied in the rejections of independent claim 34, supra, and further discloses the texture map tile corresponding to the viewing angle for each region is calculated based upon the determining of the viewing angle ("In the step 203 of Fig. 6, the geometric operation unit 41 determines a plurality of texture data for the assumed directions closest to the view direction", column 9, line 45-47).

14. As per claim 38, Sakaibara demonstrated all the elements as applied in the rejections of independent claim 34, supra, and further discloses the textile map tile

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corresponding to the viewing angle for each region is of a predetermined tile structure and includes a morphing of the predetermined tile structure ("When there is no texture data corresponding to the view direction, a plurality of texture data closest thereto are read from the texture memory and interpolated to produce an appropriate texture", Abstract).

15. As per claim 39, Sakaibara demonstrated all the elements as applied in the rejections of independent claim 34, supra, and further discloses the texture map tile corresponding to the viewing angle for each region is of a predetermined tile structure and includes a manually formed rendering of the predetermined tile structure (When CPU sends to a graphics processor information specifying a shape of the surface, a direction to view the surface and a texture in the texture memory as a command, a geometric operation unit produces read information of the texture memory based on the input information", Abstract)

Allowable Subject Matter

16. Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if corrected for incomplete sentence objection and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

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17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquiries

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-6133**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

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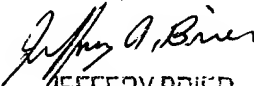
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


JEFFERY BRIER
PRIMARY EXAMINER

Ryan Yang
February 22, 2002